

# **THE NORTH CITY COGENERATION FACILITY EXPANSION (NCCFE)**

**A RENEWABLE ENERGY POWER PLANT PARTNERSHIP  
BETWEEN**

**THE CITY OF SAN DIEGO AND  
FORTISTAR METHANE GROUP, LLC**

November 2011



The North City Cogeneration Facility Expansion was Made Possible by the

**AMENDMENTS AND MODIFICATIONS TO THE  
MIRAMAR LANDFILL GAS POWER  
PLANTS PROJECT  
AGREEMENTS**

**A PARTNERSHIP BETWEEN  
THE CITY OF SAN DIEGO,  
FORTISTAR METHANE GROUP, LLC  
AND THE MARINE CORPS AIR STATION MIRAMAR (MCASM)  
Approved by City Council in  
June 2011**

**FORTISTAR**

Methane Group, LLC



MCASM





Not to Scale

Picture: Google Earth 2008  
Drawings: February 2010



# History

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- Navy had the responsibility for the LFG and the APCD violations
- City leased and operated the Landfill
- Both thought it was the other's obligation to install the LFG system
- As MBC was sited next to the Landfill, Public Utilities took the Responsibility to Privatize the LFG System and the Cogen Plants
- In December 1995 City contracted with Minnesota Methane/NEO (Fortistar) to install LFG system, MBC Cogeneration and NCCF
- City received
  - Free Landfill Gas (LFG) system
  - Free LFG system operation and maintenance
  - Free Electricity on the Landfill
  - Significantly reduced Electricity costs at MBC and NCWRP
  - 8% Royalties on Sales to NCWRP



## Existing Benefits of Fortistar Agreements

ESD has received \$7.4M in LFG Well Installations

Free LFG Well Field Operations and Maintenance worth over \$400,000/year plus Free Electricity on Landfill



MBC Cogen is Currently Saving Public Utilities \$1.2M/year



NCCF at the NCWRP is Currently Saving Public Utilities \$1.6M/year & is Providing 8% of this amount to City Revenues

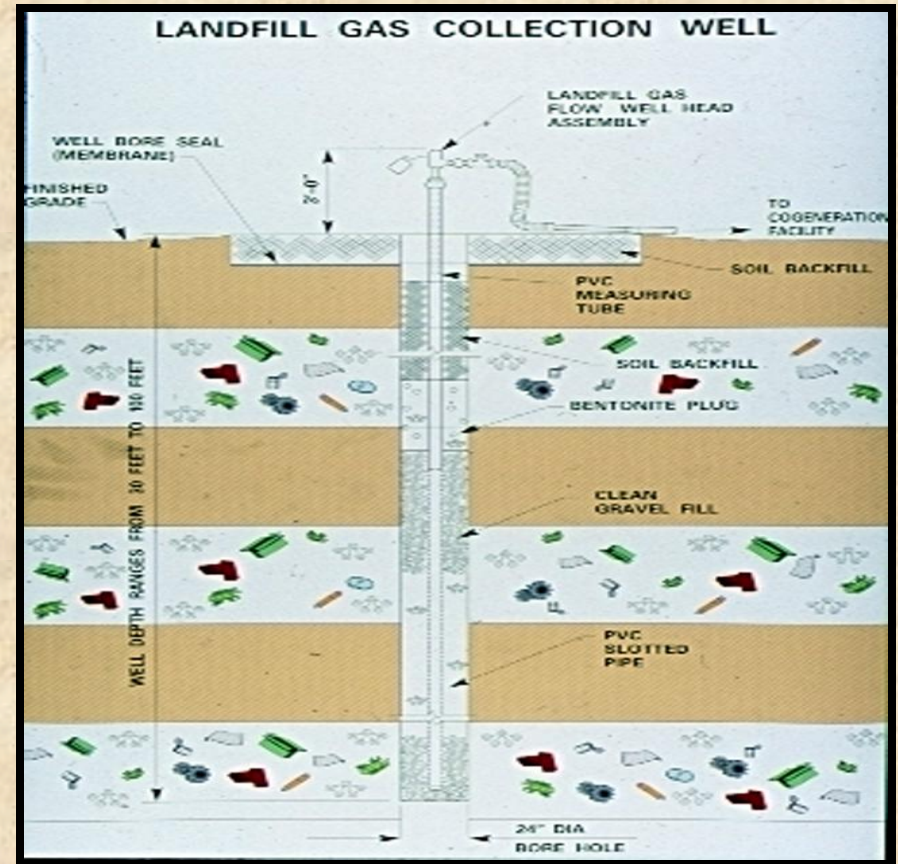


# WHY MIRAMAR LANDFILL GAS POWER PLANTS PROJECT?

- ESD Needs Additional LFG Wells
- Marines Wants Renewable Energy at MCASM
- NCWRP Needs Additional Onsite Generation Capacity for its Growing RW Electricity Loads
- MBC Wants Switchgear Modifications
- City Receives 8% Royalties on New Fortistar Revenues



# LFG WELL/Cross Section





# 6.4 MW MBC COGENERATION SYSTEM Plus 3.2 MW for MCASM





# ***NORTH CITY COGENERATION FACILITY EXPANSION***

## ***A 1.6 MW CITY OWNED EXPANSION***

**Of The 3.8 MW Existing Fortistar Owned North City Cogeneration Facility**



In January 2009 Fortistar would not move forward with the LFG wells or the Marines Project with NCCFE Included.  
The City suggested Public Utilities ownership of NCCFE



FMG will sell City Biogas at about 15 cents /Therm (vs. commercial rate for natural gas at about \$1.00/Therm)

# PROJECT DESCRIPTION (NCCFE)

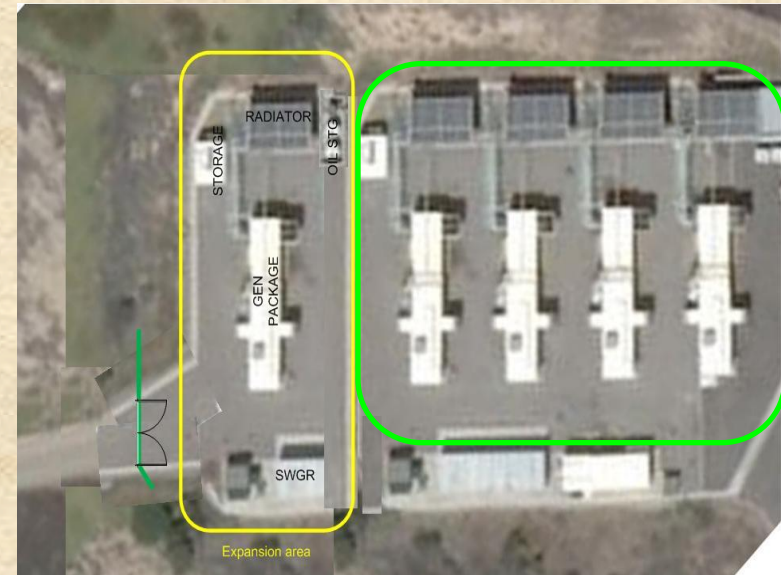
- This Action is to Purchase the Long Lead item, a 1.6 MW LFG Fueled Engine/Generator, Purchased under the National Joint Power Alliance contract with Caterpillar (locally, Hawthorne Power Systems in Kearny Mesa)
- Project Costs Estimate \$3.6M.
- Local Design Builder will move Mounds North and Perform site Preparation Work
- Same Mound and Plant Design as NCCF
- Use of same City Owned Landfill Gas Fuel Line





# CITY PROJECT BENEFITS

- FMG will provide LFG at reasonable rates for City-Owned 1.6MW Renewable Electricity at NCCFE
- Net Revenues and Energy Saving at the NCWRP will be about \$360,000/year
- 8% of Fortistar's Energy sales to NCCFE (about \$20,000/year) are split 50/50; ESD/Public Utilities Department
- Approximately 15 New LFG Wells in West Phase II Landfill as a Result of NCCFE being built  
(Total of 40 being installed)
- Local Contractor and Major Equipment Supplier



# Thank you



MCASM

